

What is claimed is:

1. A pharmaceutical composition for the induction of apoptosis containing phytosphingosine derivatives as effective components.
5
2. The pharmaceutical composition for the induction of apoptosis of claim 1 characterized by that said phytosphingosine derivatives are one or more compounds selected from a group comprised of phytosphingosine, phytosphingosine-HCl, C6-phytosphingosine, CLA-phytosphingosine, tetraacetyl phytosphingosine,
10 and N-acetyl phytosphingosine.
3. The pharmaceutical composition for the induction of apoptosis of claims 1 and 2 characterized by that Vitamin D₃ or calcipotriol is contained additionally in said phytosphingosine derivatives.
15
4. The pharmaceutical composition of claims 1 to 3, which is useful for the prevention or treatment of various skin diseases, various tumors, various cancers, and other diseases that may be prevented or cured by the induction of the activity of apoptosis in living bodies.
20
5. The pharmaceutical composition for the induction of apoptosis of claim 4, which is useful for the prevention or treatment of abnormal skin diseases such as eczema, psoriasis, ichthyosis, and others; skin diseases such as atopic dermatitis, dermatitis, itching, microbism, acne, wound, and others; abnormal skin
25 diseases induced by a long-time exposure to UV light and dermal aging; and skin

cancer and others.

6. The pharmaceutical composition for the induction of apoptosis of claim 5, which is useful for the prevention or treatment of abnormal skin diseases such as psoriasis, ichthyosis, and others and abnormal skin diseases induced by a long-time exposure to UV light and dermal aging.

7. The pharmaceutical composition for the induction of apoptosis of claim 5, which is useful for the prevention or treatment of skin cancer.

10

8. A cosmetic composition for the induction of apoptosis containing phytosphingosine derivatives as effective components.

9. The cosmetic composition for the induction of apoptosis of claim 8 characterized by that said phytosphingosine derivatives are one or more compounds selected from a group comprised of phytosphingosine, phytosphingosine-HCl, C6-phytosphingosine, CLA-phytosphingosine, tetraacetyl phytosphingosine, and N-acetyl phytosphingosine.

10. The cosmetic composition for the induction of apoptosis of claims 8 and 9 characterized by that vitamin D₃ or calcipotriol is contained additionally in said phytosphingosine derivatives.

11. The cosmetic composition for the induction of apoptosis of claims 8 to 10, which is useful for the prevention or treatment of various skin diseases,

various tumors, various cancers, and other diseases that may be prevented or cured by the induction of the activity of apoptosis in living bodies.

12. The cosmetic composition for the induction of apoptosis of claim 11,
5 which is useful for the prevention or treatment of abnormal skin diseases such as eczema, psoriasis, ichthyosis, and others; skin diseases such as atopic dermatitis, dermatitis, itching, microbism, acne, wound, and others; abnormal skin diseases induced by a long-time exposure to UV light and dermal aging; and skin cancer and others.

10

13. The cosmetic composition for the induction of apoptosis of claim 12,
which is useful for the prevention or treatment of abnormal skin diseases such as psoriasis, ichthyosis, and others and abnormal skin diseases induced by a long-time exposure to UV light and dermal aging.

15

14. The cosmetic composition for the induction of apoptosis of claim 12,
which is useful for the treatment of skin cancer.

15. A method of prevention or treatment of various skin diseases, various
20 tumors, various cancers, and other diseases that may be prevented or cured by the induction of the activity of apoptosis in living bodies, comprising the steps of the administration of compositions for the induction of apoptosis containing phytosphingosine derivatives as effective components and of the irradiation of UVB to a psoriatic lesion.

25

16. The method of prevention or treatment of various skin diseases, various tumors, various cancers, and other diseases of claim 15 characterized by that said phytosphingosine derivatives are one or more compounds selected from a group comprised of phytosphingosine, phytosphingosine-HCl, C6-phytosphingosine, CLA-
5 phytosphingosine, tetraacetyl phytosphingosine, and N-acetyl phytosphingosine.

17. The method of prevention or treatment of abnormal skin diseases such as eczema, psoriasis, ichthyosis, and others; skin diseases such as atopic dermatitis, dermatitis, itching, microbism, acne, wound, and others; abnormal skin diseases
10 induced by a long-time exposure to UV light and dermal aging; and skin cancer and others of claims 15 and 16.

18. The method of prevention or treatment of abnormal skin diseases such as psoriasis, ichthyosis, and others and abnormal skin diseases induced by a long-
15 time exposure to UV light and dermal aging of claim 17.

19. The method of prevention or treatment of skin cancer of claim 17.